CLAIMS

1. An antiglare film to be disposed on a front of a display device, said antiglare film comprising:

a transparent plastic film and an antiglare layer, the antiglare layer being formed on a surface of the transparent plastic film, the antiglare layer having fine concaves and convexes on its surface,

wherein said antiglare layer is formed of a transparent resin and satisfies requirements that:

(1) the surface of the antiglare layer has a three-dimensional ten-point mean roughness of 0.9 μm to 3 μm; and

(2) the mean spacing between adjacent profile peaks on a three-dimensional roughness reference plane is 20 μm to 50 μm.

2. The antiglare film according to claim 1, which has a total light transmittance of not less than 87% and a haze of 5 to 40.

3. The antiglare film according to claim 1, wherein the transparent resin is a cured product of an ionizing radiation-curable resin.

4. The antiglare film according to claim 1, which further comprises a primer layer to be formed between the transparent plastic film and the antiglare layer.

5. The antiglare film according to claim 4, wherein the primer layer comprises transparent fine particles.

6. A polarizing plate comprising the antiglare film according to any one of claims 1 to 5.

7. A display device comprising the polarizing plate according to claim 6 disposed on the front of a display.

8. A liquid crystal panel for a display device, comprising: two polarizing plates, the liquid crystal display cell being sandwiched between the two polarizing plates, at least one of the polarizing plates being the polarizing plate according to claim 6.

9. A display device comprising the liquid crystal

panel according to claim 8 and a surface light source device disposed on the underside of the liquid crystal panel.

10. A display device comprising the antiglare film according to any one of claims 1 to 5 disposed on the front of a display.

11. A display device comprising a touch panel and the antiglare film according to any one of claims 1 to 5 formed in that order on the front of a display.

12. A process for producing an antiglare film, comprising the steps of:

bringing a transparent plastic film in a molding tool having on its surface concaves and convexes which have an inverted shape of fine concaves and convexes of the antiglare layer to be formed;

placing an ionizing radiation-curable resin between the transparent plastic film and the molding tool;

applying an ionizing radiation to the ionizing radiation-curable resin to cure the ionizing radiation-curable resin and to adhere the cured product of the ionizing radiation-curable resin to the transparent plastic film, thereby forming an antiglare layer having fine concaves and convexes on its surface; and

separating the transparent plastic film with the antiglare layer formed thereon from the molding tool,

said antiglare layer satisfying requirements that:

(1) the surface of the antiglare layer has a three-dimensional ten-point mean roughness of 0.9 μm to 3 μm; and

(2) the mean spacing between adjacent profile peaks on a three-dimensional roughness reference plane is 20 μm to 50 μm.

13. The process according to claim 12, wherein the molding tool is in a roller form.

14. The process according to claim 12, wherein the primer layer is formed on a surface on the transparent plastic film and the ionizing radiation-curable resin is

coated on a surface of the primer layer.

15. The process according to claim 12, wherein the primer layer comprises transparent fine particles.

16. An antiglare film produced by the process according to any one of claims 12 to 15.